

*REMARKS/ARGUMENTS*

*The Restriction Requirement*

The Office Action has required restriction between the following groups of claims:

- (I) claims 1-15 and 19-31, as the claims relate to an algae ion channel,
- (II) claims 1-8, 17, and 19-31, as the claims relate to an archaean ion channel,
- (III) claims 1-8, 16, and 19-31, as the claims relate to a protozoan ion channel,
- (IV) claims 1-8, 17, and 19-31, as the claims relate to a bacterial ion channel, and
- (V) claims 1-8 and 18-31, as the claims relate to a fungal ion channel.

The Office Action also requires that Applicants elect a single specie from among the following disclosed species: the CHOP-1 protein (claim 12) and the CHOP-2 protein (claims 13-15).

*Applicants' Election*

Applicants elect, with traverse, the claims of Group I (claim 1-15 and 19-31) for further prosecution. In response to the election of species requirement, Applicants elect, with traverse, the CHOP-1 protein. Claims 1-12 and 16-31 are generic to the elected species. Applicants note that claim 1 is a generic claim that links the inventions of Groups I-V. As such, Applicants understand that the restriction requirement between the linked inventions will be withdrawn in the event that the elected claims and the linking claim are found allowable. In addition, any withdrawn claims directed to the nonelected inventions, which depend from or require all the limitations of the allowable linking claim will be rejoined and fully examined for patentability.

While Applicants have provided an election for the aforementioned specific species, the species election merely is intended to aid the Examiner in the search and examination of the present patent application. The election is by no means indicative of Applicants' willingness to ultimately limit the claims of the present application to this specie. As acknowledged in the Office Action, and consistent with an election of species requirement,

Applicants are entitled to consideration of additional species encompassed by the generic claims upon a determination that the elected specie is patentable.

*Discussion of the Restriction Requirement*

The subject application is a U.S. national stage application based on the international application PCT/EP03/03799. The Office Action alleges that the inventions defined by the claims of Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because they lack the same "special technical features." Under PCT Rule 13.2, a group of inventions is considered linked to form a single general inventive concept where there is a technical relationship among the inventions that involves at least one common or corresponding special technical feature. PCT Rule 13.2 defines the term "special technical features" as meaning those technical features that define the contribution which each claimed invention, considered as a whole, makes over the prior art (see M.P.E.P. § 1893.03(d))

Specifically, the Office Action alleges that the invention defined by the claims of Group II is disclosed in Hildebrandt et al., *Proc. Natl. Acad. Sci. USA*, 90: 3578-3582 (1993). Contrary to the assertion of the Office Action, the Hildebrandt reference discloses that bacteriorhodopsin is not an ion channel, but rather bacteriorhodopsin functions as a proton pump. In any event, the claims of Groups I-V are linked so as to form a single general inventive concept. In this respect, all of Groups I-V require the use of a biological photoreceptor as a light-controlled ion channel for the alteration of the ion conductivity of a membrane with the aid of light, wherein the photoreceptor comprises an apoprotein and a light-sensitive polyene covalently bound to the apoprotein, and wherein the polyene interacts with the apoprotein and functions as a light-sensitive gate.

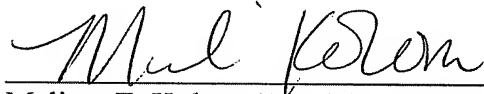
Given the special technical feature common to the claims of Group I-V, a search for prior art with respect to each of Groups I-V would likely uncover references that would be considered by the Examiner during the examination of the other groups. As a result, the Examiner would incur no undue burden in examining the claims of Group I-V at the same time. See also M.P.E.P. § 803 ("If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions." (emphasis added)).

In view of the foregoing, Applicants request that the requirement for restriction be withdrawn and that the claims of Groups I-V be examined together.

*Conclusion*

Applicants respectfully submit that the patent application is in condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned agent.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Melissa E. Kolom", is written over a horizontal line.

Melissa E. Kolom, Reg. No. 51,860  
LEYDIG, VOIT & MAYER, LTD.  
Two Prudential Plaza, Suite 4900  
180 North Stetson Avenue  
Chicago, Illinois 60601-6731  
(312) 616-5600 (telephone)  
(312) 616-5700 (facsimile)

Date: November 1, 2007